

**REMARKS**

Claims 1-3, 5 and 6 are pending and under consideration in the above-identified application. Claim 2 was cancelled previously.

In the Final Office Action dated January 5, 2010, the Examiner rejected claims 1-3, 5 and 6.

With this Amendment, claims 1 and 5 were amended. No new matter has been introduced as a result of the amendments.

**I. 35 U.S.C. § 103 Obviousness Rejection of Claims**

Claim 1 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Nagura et al. (JP 2002 373643) ("JP '643") in view of either Hisashi et al. (U.S. Publication No. 2005 0153205), Fujimoto et al. (U.S. Publication No. 2004 0058245), Park et al. (U.S. Publication No. 2002 0136955) or Masaki et al. (JP 2001 015101).

Claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Nagura et al. in view of either Hisashi et al., Fujimoto et al., Park et al. or Masaki et al. Applicants respectfully traverse this rejection.

Applicants respectfully traverse the above listed rejections.

The claims require that the weight ratio of the compound oxide to the mechanofused mixture is between 98:2 to 70:30 and is represented by the formula A: (B+C). In the required ratio, A is the weight of the lithium-nickel-manganese oxide, B is the weight of the inorganic compound and C is the weight of the carbonaceous material. This mechanofused mixture substantially coats the entire surface of the base particle. Specification, page 8.

The Examiner argued that JP '643 teaches the weight ratio of the particles is at least 70% but less than 98% relative to the coating layer. Office Action, pages 2-3. However, as noted by

the Examiner, JP '643 fails to teach a mechanofused mixture that includes at least one inorganic compound selected from the group of  $\text{LiFePO}_4$  and  $\text{Li}_3\text{PO}_4$ . As such, the weight ratio taught by JP '643 is not the same as the weight ratio required by the claims because JP '643 teaches a weight ratio for compounds different than those required by the claims. Furthermore, the ratio required by the claims would not be considered obvious over JP '643 because JP '643 does not disclose "the general conditions of the claim" *In re Aller*, 220 F.3d 454 (CCPA 1955).

JP '643 also teaches the "indispensable condition to cover selectively the front face of the particle" with a lithium ion conductivity polymer. JP '643, [0009-0011]. The remaining surface of the particle can be covered with an inorganic conducting material and an electron conducting material. JP '643, [0010]. The claims, however, require that the mechanofused mixture substantially coats the entire surface of the base particle. As such, JP '643 does not teach the same requirements of the claims, because JP '643 teaches that the front side of the particle must be covered with a lithium ion conductivity polymer, whereas the claims require that the mechanofused mixture is substantially on the entire surface of the base particle.

Additionally, Applicant maintains that the combination JP '643 with Yamaura, Takada and Mohwald with JP '643 is improper hindsight reasoning. The Examiner suggests that the motivation to use a mechanofused mixture that includes at least one inorganic compound selected from the group of  $\text{LiFePO}_4$  and  $\text{Li}_3\text{PO}_4$  as a coating is suggested because Yamaura, Takada and Mohwald teach the use of lithium iron phosphate and lithium phosphate as known conductive materials. Office Action, page 5. While  $\text{LiFePO}_4$  and  $\text{Li}_3\text{PO}_4$  may be an obvious substitution for a conductive material in another device, the Examiner has provided no reason why it would be an obvious substitution for a coating, aside from what could be considered improper hindsight reasoning. As such, the Examiner has provided no reason that would have

prompted one of ordinary skill in the art to combine the elements and/or modify a reference(s) so as to reach the requirements of the claim; and shown no reasonable expectation of success of the combination and/or modification. MPEP § 2143; *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. \_\_\_, Slip Op No. 04-1350, 119 Fed. Appx. 282 (April 30, 2007). Indeed, mere hindsight is insufficient to demonstrate a motivation to combine, much less an expectation of success when the combination requires a change in function of the compound taught by the prior art, i.e. from a conductive material to a coating.

As such, the cited references taken either singularly or in combination with each other fail to teach or even fairly suggest all the required elements of the claims. Thus, claim 1 is patentable over the cited references. Accordingly, Applicant respectfully requests that the above rejection be withdrawn. Additionally, Applicant requests that the rejection of dependant claim 3, which is based on part on Nagura, Hisashi, Fujimoto et al., Park et al. and Masaki et al. be withdrawn for at least the same reasons.

Claims 5 and 6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nagura et al. in view of either Hisashi et al., Fujimoto et al., Park et al. or Masaki et al. in further view of Yamaura et al. (U.S. Patent No. 4,668,594); Takada et al. (U.S. Patent No. 5,958,281) or Mohwald et al. (U.S. Patent No. 6,475,663). Applicants respectfully traverse this rejection.

Claim 5 requires a nonaqueous electrolyte secondary battery that includes an active material. The active material contains a base particle, of which the entire surface is substantially coated with a mechanofused mixture. Claim 5 also requires a weight ratio of the compound oxide to the mechanofused mixture is between 98:2 to 70:30 and is represented by the formula A:

(B+C). In the required ratio, A is the weight of the lithium-nickel-manganese oxide, B is the weight of the inorganic compound and C is the weight of the carbonaceous material.

As discussed above, JP '643 does not teach or even fairly suggest the weight ratio required by the claims, or a mechanofused mixture that substantially coats the entire surface of the base particle. Additionally, Yamaura, Takada and Mohwald do not teach or even fairly suggest that  $\text{LiFePO}_4$  and  $\text{Li}_3\text{PO}_4$  are suitable for coating a base particle of an active material.

Accordingly, taken either singularly or in combination with each other, the above cited references fail to teach or even fairly suggest all the requirements of the claims 5 and 6. Thus, claims 5 and 6 are patentable over the cited references. As such, Applicants respectfully request the above rejection be withdrawn

## **II. Conclusion**

In view of the above amendments and remarks, Applicants submit that all claims are clearly allowable over the cited prior art, and respectfully requests early and favorable notification to that effect.

Respectfully submitted,

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